Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-50. (canceled)

51. (currently amended) A method of determining if a subject has ~~an increased risk of developing~~ a cancer, comprising determining if a cell of the subject has a reduced expression of a mammalian 15 kDa selenoprotein comprising a sequence having at least ~~70%~~ 95% sequence identity to SEQ ID NO: ~~1 or~~ 4 when compared to expression of the 15 kDa selenoprotein in a control cell, wherein the reduced expression indicates that the subject has cancer.

52. (currently amended) The method of claim 51, wherein determining the reduced expression of the mammalian 15 kDa selenoprotein comprises determining whether the expression of the mammalian 15 kDa selenoprotein is reduced by ~~at least~~ 3-5 fold in the cell of the subject when compared to expression of the 15 kDa selenoprotein in a control cell.

53. (previously presented) The method of claim 51, wherein determining the reduced expression of the mammalian 15 kDa selenoprotein comprises determining whether the expression of the mammalian 15 kDa selenoprotein is reduced by at least 50% in the cell of the subject when compared to expression of the 15 kDa selenoprotein in a control cell.

54-63. (Cancel)

64. (currently amended) The method of claim 51, wherein the 15 kDa selenoprotein comprises SEQ ID NO: ~~1 or~~ 4.

65-66. (Cancel)

67. (original) The method of claim 51, wherein the cancer is a prostate cancer.

68. (original) The method of claim 51, wherein the cancer is a liver cancer.

69. (original) The method of claim 51, wherein the cancer is a lymphoma, ovarian cancer, or fallopian tube cancer.

70. (original) The method of claim 51, wherein determining expression of the mammalian 15 kDa selenoprotein comprises contacting a sample comprising the cell of the subject with a specific binding agent that specifically binds to the mammalian 15 kDa selenoprotein under conditions whereby the specific binding agent forms a complex with any 15 kDa selenoprotein present in the sample, and quantifying the complexes.

71. (original) The method of claim 70, wherein the sample is a biological fluid or a biopsy sample.

72. (original) The method of claim 71, wherein the biological fluid is blood.

73. (original) The method of claim 70, wherein the specific binding agent that specifically binds to the mammalian 15 kDa selenoprotein is an antibody.

74. (original) The method of claim 71, wherein the antibody is a polyclonal antibody.

75. (original) The method of claim 72, wherein the antibody is a monoclonal antibody.

76. (original) The method of claim 73, wherein the monoclonal antibody is a humanized monoclonal antibody.

77. (original) The method of claim 71, wherein the antibody is bound to a solid substrate.

78. (original) The method of claim 51, wherein determining expression of the mammalian 15 kDa selenoprotein comprises:

incubating ^{75}Se with the cell of the subject; and

detecting ^{75}Se incorporated into the mammalian 15 kDa selenoprotein.

79. (original) The method of claim 78, wherein incubating ^{75}Se with the cell of the subject comprises administering the ^{75}Se to the subject.

80. (original) The method of claim 51, wherein determining expression of the mammalian 15 kDa selenoprotein comprises Western blotting of the mammalian 15 kDa selenoprotein, Northern blotting of an mRNA coding for the mammalian 15 kDa selenoprotein, or Southern blotting of a DNA encoding for the mammalian 15 kDa selenoprotein.

81. (original) The method of claim 51, wherein the cell of the subject is a blood cell.

82. (currently amended) The method of claim 51, wherein the cell of the subject is a ~~thyroid~~ liver cell, lymph node cell, ovarian cell, fallopian tube cell, or prostate cell.

83. (new) A method of determining if a subject has a cancer, comprising determining if a cell of the subject has a reduced expression of a mammalian 15 kDa selenoprotein comprising SEQ ID NO: 4 when compared to expression of the 15 kDa selenoprotein in a control cell, wherein the reduced expression indicates that the subject has cancer.